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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,005	09/15/2003	Pai-Fu Hung	2001040	1752

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EXAMINER

HO, HUY C

ART UNIT PAPER NUMBER

2617

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,005

Applicant(s)

HUNG ET AL.

Examiner

Huy C. Ho

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/15/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-2, 4-9, 11-15, and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Ofek (2004/0196834).**

Consider claim 1, Ofek teaches a WLAN (Wireless Local Area Network) device having a smart antenna system (see the abstract, pars [19]-[20], [95], [99] and [100]), comprising:

a plurality of WLAN transceiver modules (see the abstract, fig 4, pars [19]-[20], [22], [28], [33], [99]-[100], [104], [108]-[130]),

a plurality of directional antennas, respectively installed on said WLAN transceiver modules in an one-to-one correspondence, wherein said directional antennas are equally spaced apart in an annular array, and each of said directional antennas is responsible for the communication of a plurality of users in a cell (see the abstract, figs 3 and 6, pars [20], [27]-[29], [35], [50]-[52], [79], [86], [88], [89]).

Consider claim 7, Ofek teaches a WLAN device having a smart antenna system (see the abstract, pars [19]-[20], [95], [99]-[100]), comprising:

a plurality of WLAN transceiver modules (see the abstract, fig 4, pars [19]-[20], [22], [28], [33], [99]-[100], [104], [108]-[130]),

a plurality of array antennas, respectively installed on said WLAN transceiver modules in an one-to-one correspondence, wherein each of said array antennas is composed of a plurality of omni-directional antennas, and the radiation patterns of said array antennas are controlled to be directional radiation patterns, and each of said array antennas is responsible for the communication of a plurality of users in two opposite cells (see the abstract, figs 3 and 6, pars [18], [20], [27]-[29], [35], [50]-[52], [74], [79], [86], [88], [89], [296]).

Consider claim 14, Ofek teaches a smart antenna system, comprising:

a plurality of directional antennas, respectively installed on a plurality of WLAN transceiver modules in an one-to-one correspondence, wherein said directional antennas are equally spaced apart in an annular array, and each of said directional antennas is responsible for the communication of a plurality of users in a cell (see the abstract, figs 3 and 6, pars [20], [27]-[29], [35], [50]-[52], [79], [86], [88], [89]).

Consider claims 2, 9 and 15, Ofek teaches the WLAN device having the smart antenna system according to claim 1, wherein the specification of each of said WLAN transceiver modules is selected from a group consisting of IEEE802.11a, IEEE802.11b, IEEE802.11g and an arbitrary combination thereof (see figs 1, 2, 4, 5, 7 and 9, pars [77], [100], [101], [117], [221], [289]).

Consider claims 4, 11 and 17, Ofek teaches the WLAN device having the smart antenna system according to claims 1, 7 and 16, comprising a CPU (see figs 4-9, pars [15], [53], [118], [127], [216], [221], [263]-[265], [291]).

Consider claims 5, 12 and 18, Ofek teaches the WLAN device having the smart antenna system according to claims 4, 11 and 17, comprising a plurality of interface elements used for respectively

connecting said CPU to said WLAN transceiver modules (see figs 4-9, pars [15], [53], [118], [127], [216], [221], [263]-[265], [291]).

Consider claims 6 and 13, Ofek teaches the WLAN device having the smart antenna system according to claims 5 and 12, wherein each of said interface elements is selected from a group consisting of a PCI (Peripheral Component Interface), a mini PCI, PCMCIA (Personal Computer Memory Card International Association) and a Cardbus interface (see pars [216], [291]).

Consider claim 8, Ofek teaches the WLAN device having the smart antenna system according to claim 7, wherein said omni-directional antennas are a plurality of dipole antennas (see par [86], [240]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claims 3, 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ofek et al. (2004/0196834) and further in view of Corbett et al. (7,130,586).**

Consider claims 3, 10 and 16, as applied to claims 1, 7 and 14, Ofek does not teach the WLAN device is selected from a group consisting of a gateway, a wireless switch, a wireless hub, a wireless switching hub and a wireless switching router. However, Ofek describes the WLAN device is an access point (see the abstract, pars [4], [8], [20]). In an analogous art, Corbett teaches the WLAN device is selected from a group consisting of a gateway, a wireless switch, a wireless hub, a wireless switching hub and a wireless switching router (see pars [6], [15], [27]). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify and incorporate Corbett teachings into Ofek invention in order to have the featuring of the WLAN device is selected from a group consisting of a gateway, a wireless switch, a wireless hub, a wireless switching hub and a wireless switching router.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy C. Ho whose telephone number is (571) 270-1108. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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